

UF + SWFWMD

**Forestry Suppliers, Inc.**

**1-800-647-5368**

**49354 Level Book**

[illegible]

Regreased doors to Vacuum desiccators.

Core pieces laid on open  
whirl pak bags. One  
desiccator contains beaker  
w/ small amt of water.  
Core Labeled in desiccator:

AA → ② → ③ → ④ → 5 Bottom  
450 455  
AA TR9-1 Bottom

Open core visibly wet.  
Smell not too bad  
within half an hour in  
desiccator core is visibly  
drier.

Vacuum failed around  
12-11-09. New Vacuum  
in place around 12-16 or 12-17

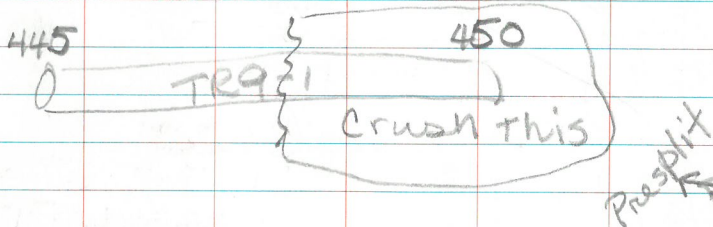
Samples crushed on 12-22-09 + put back in desiccators.

Approx crushed wt  $\approx 3600g$



12-22-09

Second 5 ft section  
opened and put in  
desiccator to dry.  
Not as wet as first  
Core. More Broken than  
first core section.  
Also had a slight  
smell.



Task 2 will be 6-300g  
Samples  
3 preserved 3 NOT Preserved

Task 3 will be 6-300g  
Samples  
Litho Geochem 3-4 samples  
Splits

1-6-10

Crush  $\frac{1}{2}$  of second 5 ft.  
Section of Core.  
Crushing  $\approx$  447.5 to 450 ft

Start Splitting into Sample  
First Split each Core one at a time  
into 8 aliquots

Start with Core 2

Crush then Split

→ Total Wt Core 2 = 1741.67 gram  
→ Total Wt Core 1 = 3639.67

| Core 2      | Core 1      | Jan # |
|-------------|-------------|-------|
| a. 216.63 g | a. 473.45 g | 1     |
| b. 205.56 g | b. 466.20 g | 2     |
| c. 212.56 g | c. 449.58 g | 3     |
| d. 215.15 g | d. 436.07 g | 4     |
| e. 208.57 g | e. 459.33 g | 5     |
| f. 236.12 g | f. 437.94 g | 6     |
| g. 201.89 g | g. 461.95 g | 7     |
| h. 211.11 g | h. 448.38 g | 8     |

From Core 1 we will  
Combine Jar #  
1, 4, 5, 8 → one part of Sample  
with  
Core 2 Beaker # 2, 4, 5

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2<sup>nd</sup> Sample Combine  
Core #1 - 2, 3, 6, 7 → Jar #  
with  
Core #2 Beaker # → 4, 7, 8

Beakers + Jars Labeled  
put back in Vacuum  
will Combine into Samples  
on Friday 1-8-10.

-1-8-10-

Combine samples as described  
above into 2 Large Samples  
alternating Core 1 + 2.

Split each Sample into  
8 samples for a total of  
16 samples

\* Sample 2-9 used  
to bring wts of other  
Sample Splits up to  $310 \pm 7$   
grams

Final Sample Wts  
after resplitting for wt adj.

1-1 307.0

1-2 324.7

1-3 310.1

1-4 313.4

1-5 309.7

1-6 311.0

1-7 316.8

1-8 307.2

2-9 ~~318.5~~

2-10 311.0

2-11 309.5

2-12 308.3

2-13 323.8

2-14 308.4

2-15 319.9

2-16 310.4

ActLab

EXPOSE

EXPOSE

ACTLAB  
EXPOSE  
ACTLAB



3 splits sent to ActLab

2-15 319.94

ActLab 2F-1

2-13 323.81

ActLab 2F-2

1-2 324.70

ActLab 2F-3

← Spilled small amt.

Spritz samples w/ DDI

Water every couple of

weeks

Apollo Beach TR-92

6-8-10 Collect NGW from TR  
Start purging at 10:22  
Reading only 8.5 Well Volume

Purge approx 4 well vol. before  
Sampling Temp rising  
+ ORP still falling

Sampled Anions Filtered  
Alk - NO Filter  
Metals Filtered + unfiltered  
Filtered Metals 0.45  $\mu$   
" " 0.1  $\mu$

Anions Filtered 0.45  $\mu$

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6-9-10

Sample NGW - Metals 0.45  $\mu$   
filter + Anion 0.45  $\mu$  filter



# Vessel Split 6-9-10 Setup

| Vessel # | Split #      | Wt.   |             |
|----------|--------------|-------|-------------|
| 1        | 1            | 307.0 | Preserved   |
| 2        | 3            | 310.1 | Preserved   |
| 3        | 5            | 309.7 | Preserved   |
| - 4      | 4            | 313.4 | Unpreserved |
| - 5      | 8            | 307.2 | Unpreserved |
| - 6      | 14           | 308.4 | Unpreserved |
| 7        | <u>Blank</u> |       |             |
| - 8      | 6            | 311.0 | Preserved   |
| - 9      | 7            | 316.8 | "           |
| - 10     | 10           | 311.0 | "           |
| - 11     | 11           | 309.5 | "           |
| - 12     | 12           | 308.3 | "           |
| - 13     | 16           | 310.4 | "           |

Start filling w/ water  
 Finished 1:20pm  
 2:05

Vessel 3 used for  
 filling vessels  
 2-3 psi to push water

| Thur<br>Sample<br># | 6-10-10 | 8:45 Am | MS             |
|---------------------|---------|---------|----------------|
|                     | DO      | ORP     | pH Temp Cond   |
| 1                   | 0.28    | -110.1  | 7.56 24.1 1670 |
| 2                   | 0.26    | -135.1  | 7.41 24.5 1672 |
| 3                   | 0.31    | -131.4  | 7.49 25.4 1672 |
| 4                   | 0.24    | -93.2   | 7.58 25.3 1671 |
| 5                   | 0.21    | -94.9   | 7.53 25.4 1675 |
| 6                   | 0.26    | -83.9   | 7.61 25.3 1660 |
| 7                   | 0.28    | -276.4  | 7.76 25.6 1643 |
| 8                   | 0.25    | -174.2  | 7.59 25.1 1670 |
| 9                   | 0.23    | -172.5  | 7.57 24.7 1671 |
| 10                  | 0.24    | -168.2  | 7.54 25.5 1671 |
| 11                  | 0.27    | -145.4  | 7.57 25.5 1668 |
| 12                  | 0.22    | -139.6  | 7.50 25.6 1674 |
| 13                  | 0.25    | -143.5  | 7.56 24.5 1678 |

Vessel

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] → ORP read 5 times. First

4 readings were  
between 1.4 - 9.6.

Last reading is one  
recorded last  
reading done after  
blank.

Sample 20ml FGS  
FGS 18ml TM  
2 ml Anions

20ml 2F TM



| Sample # | DO   | ORP    | pH   | Temp | ms Comb | Vessel # |
|----------|------|--------|------|------|---------|----------|
| 14       | 0.25 | -42.4  | 7.60 | 25.9 | 1669    | 1        |
| 15       | 0.23 | -50.9  | 7.59 | 26.2 | 1662    | 2        |
| 16       | 0.28 | -18.3  | 7.54 | 26.2 | 1667    | 3        |
| 17       | 0.22 | -40.7  | 7.63 | 26.2 | 1666    | 4        |
| 18       | 0.26 | -161.9 | 7.68 | 26.0 | 1665    | 5        |
| 19       | 0.25 | -154.8 | 7.70 | 26.0 | 1659    | 6        |
| 20       | 0.19 | -251.1 | 8.05 | 26.0 | 1646    | 7        |
| 21       | 0.24 | -142.0 | 7.63 | 25.6 | 1660    | 8        |
| 22       | 0.24 | -154.8 | 7.59 | 25.8 | 1659    | 9        |
| 23       | 0.23 | -154.2 | 7.57 | 25.8 | 1664    | 10       |
| 24       | 0.20 | -134.5 | 7.62 | 25.8 | 1660    | 11       |
| 25       | 0.24 | -136.4 | 7.56 | 25.8 | 1664    | 12       |
| 26       | 0.25 | -152.7 | 7.60 | 25.6 | 1656    | 13       |

After taking  
Samples switched  
from UHPN to  
N.  
N used for refilling  
Vessels 8-13

Only # 14-20  
Analyzed for FGS

pH probe was cleaned w/ soap & hot  
water, re-checked twice. DI water  
reading a pH of 9.0-10.0.

Blank labeled A for Trace metal  
pH for DDI high 9+



| Sample ID | Mon 6-14 | DO     | ORP  | pH   | Temp | US Cond | Vessel # |
|-----------|----------|--------|------|------|------|---------|----------|
| 27        | 0.22     | -217.0 | 7.56 | 26.5 | 1646 | 1       |          |
| 28        | 0.22     | -233.7 | 7.52 | 26.8 | 1643 | 2       |          |
| 29        | 0.23     | -220.7 | 7.48 | 26.8 | 1645 | 3       |          |
| 30        | 0.21     | -216.0 | 7.57 | 26.4 | 1649 | 4       |          |
| 31        | 0.20     | -217.4 | 7.57 | 26.5 | 1652 | 5       |          |
| 32        | 0.24     | -201.8 | 7.60 | 26.5 | 1655 | 6       |          |
| 33        | 0.24     | -232.8 | 8.09 | 26.7 | 1640 | 7       |          |
| 34        | 0.44     | -70.8  | 7.62 | 26.0 | 1654 | 8       |          |
| 35        | 0.19     | -219.9 | 7.57 | 26.7 | 1642 | 9       |          |
| 36        | 0.23     | -221.7 | 7.59 | 26.8 | 1644 | 10      |          |
| 37        | 0.19     | -203.4 | 7.59 | 26.7 | 1643 | 11      |          |
| 38        | 0.20     | -198.7 | 7.77 | 26.7 | 1641 | 12      |          |
| 39        | 0.23     | -211.8 | 7.60 | 26.6 | 1642 | 13      |          |

#27-33 for 2F Collected  
 11ml for DOC + TM.  
 TM filtered pushed few  
 ml thru filter before  
 collecting  
 33-39 Collected 22ml for  
 DOC + 22ml for TM

pH for Blank  
 back to normal

C, D, E = As Spikes

| spike | [As] Added |
|-------|------------|
| E     | + 6.0 ppb  |
| D     | + 27.8 ppb |
| C     | + 111 ppb  |

only 27-33 analyzed  
 for FGS

Syringes were soaked in  
 $\text{HNO}_3$  over weekend + triple  
 rinsed in DI water  
 before using (Syringes were not  
 individually wrapped)

B - Blank for TM



| Sample ID | Wed  | 6/16/10 | 8:30 Am |      |       |
|-----------|------|---------|---------|------|-------|
|           | DO   | dep     | pH      | Temp | COND. |
| 40        | 0.25 | -202.3  | 7.68    | 26.8 | 1631  |
| 41        | 0.24 | -212.8  | 7.54    | 27.1 | 1623  |
| 42        | 0.24 | -207.1  | 7.54    | 27.2 | 1622  |
| 43        | 0.27 | -189.6  | 7.56    | 27.2 | 1631  |
| 44        | 0.25 | -206.6  | 7.65    | 27.4 | 1637  |
| 45        | 1.35 | +24.1   | 7.66    | 27.0 | 1643  |
| 46        | 0.22 | -205.2  | 8.06    | 27.1 | 1624  |
| 47        | 0.14 | -137.0  | 7.66    | 26.3 | 1639  |
| 48        | 0.18 | -197.3  | 7.68    | 26.7 | 1627  |
| 49        | 0.21 | -204.9  | 7.67    | 26.7 | 1625  |
| 50        | 0.29 | -95.4   | 7.67    | 26.7 | 1634  |
| 51        | 0.20 | -204.1  | 7.75    | 26.4 | 1623  |
| 52        | 0.17 | -203.5  | 7.82    | 26.5 | 1631  |

Syringes unwrapped  
soaked " in  $\text{HNO}_3$  (10% vol)  
Overnight Triple rinse  
w/ DDI

DDI Blank F  
DDI pH high > 9

Vessel #

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← Checked fittings seems  
OK but DO was high

$\text{Fe}^{\text{II}}$  + Sulfide  
measured  
on Vessels 8-13



| sample ID | DO   | ORP    | pH   | Temp | Cond |
|-----------|------|--------|------|------|------|
| 53        | 0.14 | -183.8 | 7.74 | 25.4 | 1628 |
| 54        | 0.22 | -200.8 | 7.59 | 26.4 | 1625 |
| 55        | 0.22 | -192.5 | 7.63 | 26.5 | 1623 |
| 56        | 0.22 | -163.0 | 7.69 | 26.5 | 1637 |
| 57        | 0.20 | -170.9 | 7.72 | 25.8 | 1639 |
| 58        | 0.22 | -141.6 | 7.71 | 26.4 | 1639 |
| 59        | 0.17 | -134.9 | 8.03 | 26.5 | 1627 |
| 60        | 0.23 | -182.4 | 7.75 | 26.0 | 1631 |
| 61        | 0.20 | -184.5 | 7.71 | 26.3 | 1623 |
| 62        | 0.19 | -192.9 | 7.69 | 26.2 | 1623 |
| 63        | 0.19 | -195.2 | 7.70 | 26.2 | 1620 |
| 64        | 0.22 | -200.6 | 7.68 | 26.1 | 1621 |
| 65        | 0.22 | -196.0 | 7.69 | 26.2 | 1625 |

Vessel #

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Replacement water upto today  
from Carboy #3. TODAY  
Replacement from Carboy #1

DDI Blank G  
DDI pH 8+



sample

6-21-10

8:15 a.m.

Vessel

| II | DO   | ORP    | pH   | Temp | Cond. |
|----|------|--------|------|------|-------|
| 66 | 0.19 | -134.7 | 7.78 | 24.8 | 1617  |
| 67 | 0.19 | -166.6 | 7.58 | 26.4 | 1616  |
| 68 | 0.22 | -160.6 | 7.64 | 25.7 | 1612  |
| 69 | 0.26 | -100.3 | 7.65 | 26.2 | 1624  |
| 70 | 0.21 | -102.0 | 7.69 | 25.9 | 1632  |
| 71 | 0.26 | -77.0  | 7.71 | 26.0 | 1625  |
| 72 | 0.24 | -67.4  | 8.01 | 26.3 | 1615  |
| 73 | 0.17 | -151.0 | 7.74 | 25.3 | 1618  |
| 74 | 0.19 | -158.7 | 7.72 | 25.6 | 1633  |
| 75 | 0.17 | -148.5 | 7.72 | 25.7 | 1617  |
| 76 | 0.20 | -129.3 | 7.71 | 25.7 | 1614  |
| 77 | 0.11 | -161.5 | 7.74 | 25.6 | 1617  |
| 78 | 0.16 | -161.9 | 7.73 | 25.5 | 1616  |

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DDI Blank H

| Sample ID | DO   | ORP    | pH   | Temp | CONA |
|-----------|------|--------|------|------|------|
| 79        | 0.20 | -144.7 | 7.81 | 24.9 | 1625 |
| 80        | 0.24 | -156.7 | 7.67 | 26.2 | 1617 |
| 81        | 0.17 | -158.7 | 7.66 | 26.2 | 1615 |
| 82        | 0.20 | -100.0 | 7.69 | 26.1 | 1624 |
| 83        | 0.22 | -104.4 | 7.72 | 26.2 | 1633 |
| 84        | 0.19 | -69.0  | 7.74 | 26.3 | 1622 |
| 85        | 0.17 | -71.2  | 8.03 | 26.5 | 1614 |
| 86        | 0.19 | -88.4  | 7.76 | 25.4 | 1625 |
| 87        | 0.24 | -111.8 | 7.72 | 25.7 | 1611 |
| 88        | 0.11 | -134.9 | 7.76 | 25.6 | 1610 |
| 89        | 0.27 | -65.5  | 7.72 | 25.6 | 1606 |
| 90        | 0.15 | -148.2 | 7.77 | 25.5 | 1612 |
| 91        | 0.19 | -149.7 | 7.75 | 25.6 | 1613 |

DDI BLANK: I

Vessel #

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tubing was loose - retightened

Fe tested on Most of Vessels

Sulfide odor in carboy



| Sample ID | 6/25/10 | 8:00 Am | MS             |
|-----------|---------|---------|----------------|
| DO        | ORP     | pH      | Temp Cond      |
| 92        | 0.23    | -131.4  | 7.85 25.3 1624 |
| 93        | 0.25    | -161.1  | 7.55 26.7 1612 |
| 94        | 0.23    | -159.3  | 7.75 26.4 1612 |
| 95        | 0.26    | -123.1  | 7.76 26.6 1626 |
| 96        | 0.17    | -135.4  | 7.78 26.2 1626 |
| 97        | 0.19    | -101.7  | 7.77 26.5 1625 |
| 98        | 0.20    | -108.3  | 8.05 26.5 1621 |
| 99        | 0.15    | -133.7  | 7.77 25.2 1619 |
| 100       | 0.16    | -132.5  | 7.82 26.1 1609 |
| 101       | 0.15    | -147.2  | 7.77 26.4 1615 |
| 102       | 0.17    | -126.0  | 7.83 26.4 1606 |
| 103       | 0.16    | -115.6  | 7.91 26.1 1614 |
| 104       | 0.15    | -148.6  | 7.82 26.4 1621 |

DDI Blank J

Vessel #

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Fe for all 13 vessels  
Repeats of Fe for  
Vessels 8-13

Sulfide measurement  
on replacement water

CARBOX 1

No dilution off scale high 880  
1:1 dilution 437 mg/L

$[H_2S]_{tot} = 874 \text{ mg/L}$  ✓

SPH



| Sample ID | DO   | ORP    | pH   | Temp | Cond |
|-----------|------|--------|------|------|------|
| 105       | 0.19 | -78.2  | 7.80 | 26.0 | 1622 |
| 106       | 0.23 | -49.9  | 7.66 | 26.9 | 1618 |
| 107       | 0.26 | -57.9  | 7.64 | 26.9 | 1610 |
| 108       | 0.29 | -26.5  | 7.53 | 26.5 | 1624 |
| 109       | 0.21 | -15.4  | 7.76 | 26.7 | 1629 |
| 110       | 0.19 | -6.6   | 7.78 | 26.5 | 1613 |
| 111       | 0.23 | -25.6  | 8.00 | 26.4 | 1621 |
| 112       | 0.20 | -70.5  | 7.81 | 25.9 | 1616 |
| 113       | 0.19 | -112.0 | 7.76 | 26.6 | 1607 |
| 114       | 0.20 | -119.3 | 7.76 | 26.6 | 1611 |
| 115       | 0.29 | -60.9  | 7.76 | 26.7 | 1612 |
| 116       | 0.24 | -52.8  | 7.75 | 26.4 | 1613 |
| 117       | 0.18 | -45.1  | 7.74 | 26.4 | 1619 |

DDI Blank K

Vessel #

1 First reading -66.7, measured 3 times

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DO measured twice, first reading = 0.30

Recalibrated DO meter was at 97%



| Sample ID | DO   | ORP    | pH   | Temp | Cond |
|-----------|------|--------|------|------|------|
| 118       | 0.25 | -204.8 | 7.71 | 24.9 | 1621 |
| 119       | 0.27 | -202.4 | 7.59 | 25.9 | 1610 |
| 120       | 0.20 | -176.6 | 7.63 | 25.9 | 1604 |
| 121       | 0.42 | +25.6  | 7.64 | 25.5 | 1626 |
| 122       | 0.23 | +8.9   | 7.69 | 24.9 | 1617 |
| 123       | 0.21 | -50.0  | 7.67 | 25.7 | 1609 |
| 124       | 0.23 | -41.3  | 7.94 | 25.8 | 1619 |
| 125       | 0.25 | -52.3  | 7.77 | 24.4 | 1610 |
| 126       | 0.20 | -179.7 | 7.73 | 25.5 | 1607 |
| 127       | 0.12 | -203.2 | 7.73 | 25.6 | 1605 |
| 128       | 0.17 | -107.9 | 7.76 | 25.4 | 1591 |
| 129       | 0.12 | -183.6 | 7.75 | 25.6 | 1607 |
| 130       | 0.12 | -110.8 | 7.76 | 25.5 | 1617 |

DDI Blank L

Vessel

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4 read 0.44, checked DO meter, at 97.1%

5 so recalibrated

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Fe for all 13 vessels  
Sample + Ferrozone  
put in syringe + filtered  
w/ 0.45  $\mu$  filter.

| Sample ID | DO   | ORP    | pH   | Temp. | Cond. | Vessel # |
|-----------|------|--------|------|-------|-------|----------|
| 131       | 0.19 | -97.3  | 7.53 | 26.1  | 1653  | 1        |
| 132       | 0.23 | -103.0 | 7.67 | 27.7  | 1635  | 2        |
| 133       | 0.22 | -97.6  | 7.69 | 27.3  | 1640  | 3        |
| 134       | 0.42 | -65.1  | 7.67 | 27.3  | 1654  | 4        |
| 135       | 0.23 | -49.0  | 7.70 | 27.4  | 1651  | 5        |
| 136       | 0.21 | -40.2  | 7.73 | 27.3  | 1644  | 6        |
| 137       | 0.21 | -38.5  | 7.97 | 27.5  | 1649  | 7        |
| 138       | 0.25 | -43.5  | 7.75 | 26.3  | 1643  | 8        |
| 139       | 0.23 | -47.1  | 7.71 | 27.1  | 1639  | 9        |
| 140       | 0.20 | -46.3  | 7.72 | 26.4  | 1643  | 10       |
| 141       | 0.70 | -9.9   | 7.79 | 26.6  | 1633  | 11       |
| 142       | 0.22 | -51.1  | 7.73 | 26.6  | 1644  | 12       |
| 143       | 0.27 | -42.8  | 7.70 | 27.1  | 1647  | 13       |

Let N<sub>2</sub> run for extra time

tubing loose - retightened / let N<sub>2</sub> run extra time - regreased stopper

Blank M



| Sample ID | DO   | ORP   | pH   | Temp | Cond. |
|-----------|------|-------|------|------|-------|
| 144       | 0.18 | +67.8 | 7.72 | 26.2 | 1622  |
| 145       | 0.20 | -41.5 | 7.66 | 27.0 | 1607  |
| 146       | 0.16 | -58.7 | 7.71 | 26.7 | 1610  |
| 147       | 0.48 | +1.2  | 7.62 | 26.8 | 1633  |
| 148       | 0.22 | +13.5 | 7.67 | 26.6 | 1630  |
| 149       | 0.21 | +11.0 | 7.69 | 26.9 | 1617  |
| 150       | 0.17 | +15.3 | 7.97 | 27.0 | 1620  |
| 151       | 0.16 | -25.8 | 7.69 | 26.7 | 1614  |
| 152       | 0.15 | -27.1 | 7.71 | 26.9 | 1613  |
| 153       | 0.20 | -16.5 | 7.74 | 26.8 | 1614  |
| 154       | 0.19 | -5.3  | 7.70 | 26.8 | 1612  |
| 155       | 0.23 | -29.7 | 7.72 | 26.8 | 1615  |
| 156       | 0.11 | -15.4 | 7.73 | 26.9 | 1614  |

Blank N

DOC

+ Alkalinity Sample #149

cloudy w/ suspended sediment

Vessel

#

- 1 ← Took ORP reading 3X
- 2 (pH 2x) ranged from
- 3 +103 to +178
- 4 ← DO checked 3x
- 5 ← ORP checked 2x, 1st was +14.8
- 6 ← ORP checked 2x, 1st was +13.5
- 7
- 8
- 9
- 10
- 11
- 12
- 13

UFTM 1-13

FGS TM 1-13

All samples 22ml

Sampled Anions

All vessels < Alkalinity

DOC

DOC Samples used 0.1 ml HCL  
pH was 3 + #149 pH 4  
DOC samples were 22 ml



7-20-10

Water change to source water

Remove water NO  $N_2$  while removing water

Filter water + put sed + filter in vessel.

After removing water hinged w/o  $N_2$  + regrease center stopcock

Start removing water at 8am finish at 9:30am

Start adding water at  $\approx$  10:15am

Done at 11:30

Tested Cl of SW 0.2mg/L

\*Not using boakers in bag for preservative

## TASK 3 / PHASE 2

CHAMBER

July 20, 2010

- 8 DOM + SW (500ml / 500ml)
- 9 DOM + SW "
- 10 DOM + Microbe + SW "
- 11 DOM + Microbe + SW "
- 12 NaAcetate + SW
- 13 NaAcetate + SW
- 14 DOM + SW ctrl "
- 15 DOM + Microbe ctrl "
- 16 NaAcetate + SW ctrl "

Sampled: SW - TM, Aions + AIK

DOM + SW - TM

DOM + Microbes - TM

NaAcetate - TM



7-20-10

10:48 A.M.

| Parameters (Blanks) |      |       |      |      |           |
|---------------------|------|-------|------|------|-----------|
| Vessel#             | DO   | ORP   | pH   | Temp | COND      |
| 7                   | 3.76 | 242.6 | 7.72 | 27.7 | 835 $\mu$ |
| 14                  | 6.07 | 213.1 | 8.33 | 22.2 | 696 $\mu$ |
| 15                  | 6.64 | 203.1 | 8.27 | 23.0 | 685 $\mu$ |
| 16                  | 6.72 | 214.4 | 7.61 | 22.8 | 478 $\mu$ |

Sample 7-21-10 7:00am us

| TD  | DO   | ORP    | pH   | Temp | Cond |
|-----|------|--------|------|------|------|
| 157 | 0.82 | +208.5 | 7.97 | 26.7 | 917  |
| 158 | 0.77 | +209.4 | 7.99 | 27.0 | 923  |
| 159 | 0.74 | +210.5 | 8.04 | 26.9 | 945  |
| 160 | 0.86 | +213.1 | 7.97 | 26.8 | 905  |
| 161 | 0.75 | +207.9 | 7.94 | 26.8 | 911  |
| 162 | 0.55 | +206.1 | 8.03 | 26.7 | 909  |
| 163 | 1.37 | +213.4 | 8.01 | 26.9 | 834  |
| 164 | 0.57 | +206.1 | 8.02 | 26.4 | 811  |
| 165 | 0.77 | +198.4 | 8.04 | 26.7 | 818  |
| 166 | 0.70 | +196.2 | 8.00 | 27.0 | 810  |
| 167 | 0.84 | +194.9 | 7.98 | 26.8 | 818  |
| 168 | 0.27 | +181.6 | 8.29 | 26.8 | 612  |
| 169 | 0.19 | +163.4 | 8.29 | 25.6 | 616  |
| 170 | 2.18 | +165.7 | 8.37 | 26.5 | 711  |
| 171 | 2.45 | +168.8 | 8.34 | 26.3 | 704  |
| 172 | 2.80 | +176.7 | 7.89 | 26.3 | 488  |

Vessel #

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BKR Ek  
1 98.9  
2 74.9  
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4 116.8  
5 115.1  
6 126.1  
7 -66.4

Difficult to push 2nd sample  
through syringe - use 2 filters next time



| Sample ID | DO   | ORP    | pH   | Temp | Cond |
|-----------|------|--------|------|------|------|
| 173       | 0.19 | +206.2 | 8.00 | 26.7 | 919  |
| 174       | 0.26 | +199.5 | 7.95 | 27.0 | 922  |
| 175       | 0.13 | +197.3 | 7.96 | 26.8 | 951  |
| 176       | 0.24 | +195.1 | 7.94 | 26.7 | 927  |
| 177       | 0.23 | +193.2 | 7.95 | 27.4 | 920  |
| 178       | 0.18 | +194.3 | 7.96 | 27.4 | 925  |
| 179       | 0.19 | +207.5 | 8.25 | 27.2 | 832  |
| 180       | 0.14 | +189.5 | 7.99 | 26.1 | 816  |
| 181       | 0.13 | +184.6 | 7.97 | 26.7 | 824  |
| 182       | 0.06 | +183.2 | 7.92 | 26.9 | 809  |
| 183       | 0.25 | +172.8 | 7.94 | 26.8 | 814  |
| 184       | 0.19 | +183.2 | 8.24 | 25.2 | 622  |
| 185       | 0.20 | +28.7  | 8.16 | 27.0 | 618  |
| 186       | 0.22 | +43.1  | 8.32 | 26.8 | 707  |
| 187       | 0.20 | +41.2  | 8.29 | 26.6 | 702  |
| 188       | 0.21 | +49.1  | 8.20 | 26.4 | 485  |

DDI Blank 0

Vessel

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← ORP checked 3x

← ORP checked twice, same results

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Switched out stopcock for Vessel 11 because it kept separating from tubing.



| Sample ID | DO   | ORP    | pH   | Temp | Cond | Vessel # |
|-----------|------|--------|------|------|------|----------|
| 189       | 0.18 | +203.9 | 7.97 | 27.0 | 915  | 1        |
| 190       | 0.23 | +193.1 | 7.96 | 27.8 | 915  | 2        |
| 191       | 0.21 | +193.0 | 7.93 | 27.8 | 943  | 3        |
| 192       | 0.22 | +196.8 | 7.93 | 27.3 | 919  | 4        |
| 193       | 0.19 | +192.7 | 7.95 | 27.4 | 915  | 5        |
| 194       | 0.18 | +195.0 | 7.93 | 27.9 | 920  | 6        |
| 195       | 0.23 | +202.3 | 8.25 | 28.0 | 834  | 7        |
| 196       | 0.18 | +179.3 | 7.93 | 26.7 | 812  | 8        |
| 197       | 0.24 | +179.2 | 7.88 | 27.4 | 815  | 9        |
| 198       | 0.21 | +139.5 | 7.95 | 27.2 | 800  | 10       |
| 199       | 0.24 | +143.0 | 7.94 | 26.8 | 810  | 11       |
| 200       | 0.20 | -150.0 | 8.16 | 27.2 | 618  | 12       |
| 201       | 0.18 | -140.6 | 8.16 | 26.9 | 614  | 13       |
| 202       | 0.14 | +99.4  | 8.34 | 26.7 | 708  | 14       |
| 203       | 0.19 | +96.9  | 8.02 | 26.5 | 701  | 15       |
| 204       | 0.25 | +90.4  | 8.00 | 26.6 | 487  | 16       |

DDI P

pH probe very slow



| sample ID | DO   | ORP    | pH   | Temp | COND |
|-----------|------|--------|------|------|------|
| 205       | 0.38 | 181.5  | 8.04 | 27.1 | 911  |
| 206       | 0.27 | 195.5  | 7.95 | 27.8 | 914  |
| 207       | 0.10 | 192.5  | 8.02 | 27.0 | 940  |
| 208       | 0.21 | 193.4  | 7.99 | 27.2 | 914  |
| 209       | 0.14 | 200.4  | 8.01 | 27.6 | 913  |
| 210       | 0.15 | 198.0  | 8.01 | 27.7 | 919  |
| 211       | 0.08 | 201.1  | 8.34 | 27.6 | 837  |
| 212       | 0.15 | 186.8  | 7.99 | 27.2 | 809  |
| 213       | 0.16 | 182.3  | 7.94 | 27.5 | 814  |
| 214       | 0.17 | 183.7  | 7.81 | 27.5 | 799  |
| 215       | 0.12 | 177.9  | 7.99 | 27.3 | 807  |
| 216       | 0.14 | -149.9 | 8.24 | 26.6 | 617  |
| 217       | 0.12 | -141.9 | 8.14 | 27.5 | 613  |
| 218       | 0.12 | 29.6   | 8.36 | 27.6 | 711  |
| 219       | 0.08 | 33.2   | 8.36 | 27.4 | 705  |
| 220       | 0.17 | 61.0   | 8.15 | 27.5 | 493  |

vessel #

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| sample ID | DO   | ORP    | pH   | Temp | Cond | Vessel # |                                             |
|-----------|------|--------|------|------|------|----------|---------------------------------------------|
| 221       | 0.24 | 200.6  | 8.05 | 27.5 | 906  | 1        |                                             |
| 222       | 0.21 | 193.1  | 7.94 | 28.0 | 907  | 2        |                                             |
| 223       | 0.22 | 188.1  | 7.98 | 27.4 | 931  | 3        |                                             |
| 224       | 0.26 | 187.5  | 7.92 | 28.0 | 911  | 4        |                                             |
| 225       | 0.15 | 185.3  | 8.08 | 25.9 | 905  | 5        |                                             |
| 226       | 0.20 | 183.8  | 8.05 | 27.0 | 911  | 6        | pH/ORP probe died. replaced batteries       |
| 227       | 0.12 | 196.6  | 8.39 | 27.3 | 840  | 7        | & recalibrated                              |
| 228       | 0.13 | 182.0  | 7.99 | 26.7 | 801  | 8        |                                             |
| 229       | 0.10 | 178.4  | 7.96 | 27.7 | 807  | 9        |                                             |
| 230       | 0.20 | 174.8  | 7.95 | 27.6 | 794  | 10       |                                             |
| 231       | 0.18 | 173.6  | 7.95 | 27.8 | 798  | 11       |                                             |
| 232       | 0.12 | -152.3 | 8.10 | 27.5 | 611  | 12       |                                             |
| 233       | 0.16 | -151.0 | 8.16 | 27.8 | 606  | 13       |                                             |
| 234       | 0.20 | -78.9  | 8.38 | 27.3 | 710  | 14       |                                             |
| 235       | 0.14 | -39.1  | 8.34 | 27.3 | 705  | 15       |                                             |
| 236       | 0.20 | -5.6   | 8.17 | 27.4 | 494  | 16       | ran out of Na acetate - only refilled 7 mLs |

DDI Q



| Sample ID | DO   | 8-2-10<br>ORP | pH   | 8:00am<br>Temp | Cond |
|-----------|------|---------------|------|----------------|------|
| 237       | 0.22 | +186.1        | 7.97 | 27.7           | 906  |
| 238       | 0.33 | +194.3        | 7.92 | 27.5           | 908  |
| 239       | 0.17 | +202.7        | 7.96 | 27.5           | 930  |
| 240       | 0.26 | +199.9        | 7.90 | 27.8           | 908  |
| 241       | 0.22 | +209.7        | 7.98 | 27.8           | 909  |
| 242       | 0.26 | +211.1        | 7.97 | 27.4           | 911  |
| 243       | 0.16 | +213.7        | 8.30 | 27.9           | 461  |
| 244       | 0.13 | +202.2        | 7.98 | 27.0           | 797  |
| 245       | 0.22 | +198.1        | 7.91 | 27.7           | 803  |
| 246       | 0.23 | +193.8        | 7.94 | 27.5           | 793  |
| 247       | 0.23 | +190.3        | 7.98 | 27.5           | 793  |
| 248       | 0.28 | -140.9        | 8.16 | 27.5           | 607  |
| 249       | 0.22 | -138.5        | 8.15 | 27.1           | 605  |
| 250       | 0.19 | -92.8         | 8.42 | 27.1           | 712  |
| 251       | 0.21 | -73.9         | 8.36 | 27.1           | 705  |
| 252       | 0.23 | -49.2         | 8.07 | 27.2           | 496  |

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| 8-4-10    |      | 2:00 pm |      |       |       |
|-----------|------|---------|------|-------|-------|
| Sample ID | DO   | ORP     | pH   | Temp. | Cond. |
| 253       | 0.22 | 197.9   | 8.04 | 26.9  | 900   |
| 254       | 0.23 | 193.4   | 7.96 | 27.5  | 903   |
| 255       | 0.51 | 194.0   | 7.94 | 27.4  | 931   |
| 256       | 1.01 | 195.2   | 7.92 | 27.2  | 905   |
| 257       | 0.43 | 194.8   | 8.01 | 27.0  | 905   |
| 258       | 0.73 | 194.4   | 7.95 | 27.3  | 910   |
| 259       | 0.20 | 201.2   | 8.31 | 27.2  | 842   |
| 260       | 0.10 | 186.5   | 8.01 | 26.3  | 792   |
| 261       | 0.17 | 180.8   | 7.96 | 27.5  | 797   |
| 262       | 0.15 | 182.5   | 7.99 | 27.5  | 785   |
| 263       | 0.14 | 179.0   | 7.99 | 26.9  | 789   |
| 264       | 0.12 | -143.3  | 8.20 | 27.2  | 605   |
| 265       | 0.16 | -133.0  | 8.15 | 26.5  | 597   |
| 266       | 0.12 | -71.9   | 8.43 | 26.9  | 712   |
| 267       | 0.27 | -19.5   | 8.31 | 26.9  | 707   |
| 268       | 0.10 | -14.7   | 8.27 | 26.9  | 496   |

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| Sample<br>ID# | DO   | ORP    | pH   | Temp | COND |
|---------------|------|--------|------|------|------|
| 269           | 0.45 | 204.1  | 8.01 | 26.3 | 899  |
| 270           | 0.25 | 202.7  | 8.04 | 26.3 | 903  |
| 271           | 0.18 | 210.5  | 8.03 | 26.0 | 925  |
| 272           | 0.27 | 203.7  | 7.99 | 26.2 | 904  |
| 273           | 0.24 | 202.2  | 8.04 | 26.4 | 903  |
| 274           | 0.25 | 201.1  | 8.05 | 25.9 | 910  |
| 275           | 0.47 | 204.7  | 8.32 | 26.4 | 843  |
| 276           | 0.15 | 199.6  | 8.13 | 25.4 | 788  |
| 277           | 0.21 | 188.8  | 8.06 | 26.1 | 791  |
| 278           | 0.29 | 181.4  | 7.80 | 25.9 | 784  |
| 279           | 0.16 | 180.2  | 8.13 | 26.1 | 786  |
| 280           | 0.24 | -149.6 | 8.30 | 25.9 | 597  |
| 281           | 0.16 | -135.0 | 8.40 | 25.7 | 592  |
| 282           | 0.23 | -79.9  | 8.51 | 25.8 | 713  |
| 283           | 0.27 | -36.3  | 8.27 | 25.8 | 708  |
| 284           | 0.14 | -23.0  | 8.37 | 25.8 | 495  |

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| Sample ID | 8-9-10 | 8:00 am |      |      |       |
|-----------|--------|---------|------|------|-------|
|           | DO     | ORP     | pH   | Temp | Cond. |
| 285       | 0.22   | +185.0  | 8.05 | 26.5 | 893   |
| 286       | 0.27   | +196.1  | 7.97 | 26.8 | 899   |
| 287       | 0.20   | +198.3  | 8.00 | 26.7 | 920   |
| 288       | 0.31   | +200.5  | 7.97 | 26.7 | 905   |
| 289       | 0.23   | +200.2  | 8.04 | 26.5 | 904   |
| 290       | 0.17   | +199.5  | 7.95 | 26.6 | 902   |
| 291       | 0.22   | +204.6  | 8.31 | 26.8 | 845   |
| 292       | 0.21   | +193.1  | 8.07 | 26.0 | 780   |
| 293       | 0.22   | +178.5  | 8.00 | 26.5 | 788   |
| 294       | 0.20   | +191.8  | 7.95 | 25.9 | 779   |
| 295       | 0.19   | +190.1  | 8.02 | 26.2 | 778   |
| 296       | 0.19   | -156.8  | 8.21 | 26.4 | 594   |
| 297       | 0.20   | -144.4  | 8.28 | 26.1 | 589   |
| 298       | 0.22   | -80.0   | 8.46 | 26.2 | 715   |
| 299       | 0.27   | -42.7   | 8.16 | 26.1 | 708   |
| 300       | 0.21   | -25.7   | 8.40 | 26.0 | 496   |

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PCR 1-16



| Sample ID | DO   | ORP    | pH   | Temp | COND             |
|-----------|------|--------|------|------|------------------|
| 301       | 0.25 | +194.6 | 7.96 | 26.6 | 903 <sub>μ</sub> |
| 302       | 0.27 | +188.8 | 7.88 | 27.3 | 893              |
| 303       | 0.28 | +220.3 | 8.00 | 26.9 | 916              |
| 304       | 0.53 | +215.2 | 7.93 | 27.1 | 900              |
| 305       | 0.22 | +224.1 | 7.99 | 26.7 | 898              |
| 306       | 0.17 | +219.5 | 7.95 | 27.2 | 898              |
| 307       | 0.18 | +232.6 | 7.98 | 27.2 | 842              |
| 308       | 0.33 | +222.5 | 7.88 | 26.5 | 791              |
| 309       | 0.26 | +221.5 | 7.91 | 27.1 | 784              |
| 310       | 0.22 | +208.3 | 8.00 | 26.5 | 771              |
| 311       | 0.24 | +209.5 | 7.96 | 26.9 | 773              |
| 312       | 0.18 | -166.2 | 8.22 | 26.2 | 590              |
| 313       | 0.13 | -199.1 | 8.19 | 26.8 | 585              |
| 314       | 0.20 | -158.4 | 8.34 | 27.0 | 713              |
| 315       | 0.13 | -128.0 | 8.10 | 26.9 | 711              |
| 316       | 0.19 | -36.4  | 7.93 | 26.6 | 490              |

DDI R

Vessel #

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→ DO checked 3x

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| Sample ID | DO   | ORP    | pH   | Temp | COND |
|-----------|------|--------|------|------|------|
| 317       | 0.21 | +178.9 | 7.91 | 26.8 | 903  |
| 318       | 0.20 | +184.1 | 7.64 | 26.7 | 900  |
| 319       | 0.24 | +181.3 | 7.94 | 26.9 | 915  |
| 320       | 0.63 | +215.3 | 7.86 | 27.2 | 911  |
| 321       | 0.27 | +212.8 | 7.90 | 27.3 | 895  |
| 322       | 0.24 | +209.7 | 7.87 | 27.6 | 903  |
| 323       | 0.23 | +219.8 | 7.98 | 27.7 | 843  |
| 324       | 0.18 | +186.2 | 7.86 | 26.6 | 790  |
| 325       | 0.22 | +184.3 | 7.84 | 27.4 | 786  |
| 326       | 0.22 | +185.2 | 7.78 | 27.2 | 777  |
| 327       | 0.18 | +185.1 | 7.89 | 26.8 | 775  |
| 328       | 0.20 | -68.5  | 8.07 | 26.7 | 594  |
| 329       | 0.27 | -4.1   | 8.03 | 26.8 | 591  |
| 330       | 0.18 | +15.2  | 8.08 | 26.9 | 714  |
| 331       | 0.19 | +45.9  | 7.87 | 26.7 | 706  |
| 332       | 0.27 | +71.4  | 7.67 | 26.6 | 492  |

DDI Blank S

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data  
→ pH probe started "jumping around"

→ DO measured 3x

→ ORP measured 3x

" " "

measured parameters using  
N<sub>2</sub> gas then turned off N<sub>2</sub> for  
sampling & refilling and left tops  
of for 30-45 min. to oxygenate  
vessels. Also adjusted lids to not fit  
so tightly.



| Sample ID | DO   | ORP   | pH   | Temp | COND |
|-----------|------|-------|------|------|------|
| 333       | 4.64 | 180.6 | 7.90 | 26.4 | 904  |
| 334       | 4.88 | 187.9 | 7.85 | 26.3 | 903  |
| 335       | 4.68 | 187.5 | 7.91 | 26.3 | 920  |
| 336       | 5.50 | 186.2 | 7.91 | 26.4 | 910  |
| 337       | 4.91 | 187.1 | 7.95 | 26.3 | 901  |
| 338       | 5.22 | 201.9 | 7.95 | 26.3 | 903  |
| 339       | 5.66 | 203.9 | 8.02 | 26.4 | 844  |
| 340       | 4.86 | 190.3 | 7.88 | 26.1 | 793  |
| 341       | 4.14 | 200.7 | 7.89 | 26.1 | 784  |
| 342       | 4.75 | 198.6 | 7.87 | 26.1 | 777  |
| 343       | 4.78 | 195.4 | 7.90 | 26.2 | 777  |
| 344       | 4.12 | 193.2 | 8.06 | 26.1 | 599  |
| 345       | 4.01 | 193.0 | 8.02 | 26.0 | 594  |
| 346       | 5.19 | 204.8 | 8.01 | 26.0 | 714  |
| 347       | 5.29 | 206.1 | 7.93 | 25.9 | 709  |
| 348       | 5.62 | 202.0 | 7.84 | 25.9 | 491  |

HDO - No Nitrogen

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| Sample ID | 8-30-10 |        |      |      |      | 8:00 Am |
|-----------|---------|--------|------|------|------|---------|
|           | DO      | ORP    | pH   | Temp | COND |         |
| 349       | 5.56    | +149.6 | 7.87 | 25.7 | 921  |         |
| 350       | 5.72    | +149.4 | 7.88 | 26.0 | 923  |         |
| 351       | 5.32    | +151.8 | 7.83 | 26.0 | 938  |         |
| 352       | 6.41    | +158.8 | 7.92 | 25.9 | 903  |         |
| 353       | 6.21    | +162.1 | 7.94 | 25.9 | 902  |         |
| 354       | 6.53    | +156.3 | 7.89 | 25.9 | 907  |         |
| 355       | 7.29    | +169.0 | 8.00 | 25.9 | 844  |         |
| 356       | 5.97    | +170.0 | 7.71 | 25.5 | 802  |         |
| 357       | 5.27    | +181.4 | 7.81 | 25.7 | 799  |         |
| 358       | 6.11    | +176.9 | 7.83 | 25.6 | 794  |         |
| 359       | 6.18    | +176.8 | 7.85 | 25.6 | 787  |         |
| 360       | 5.37    | +178.9 | 7.94 | 25.6 | 625  |         |
| 361       | 5.48    | +182.0 | 7.97 | 25.9 | 621  |         |
| 362       | 7.22    | +185.2 | 7.90 | 25.4 | 716  |         |
| 363       | 7.17    | +186.9 | 7.90 | 25.4 | 709  |         |
| 364       | 7.29    | +175.3 | 7.82 | 25.4 | 490  |         |

HDD - No Nitrogen

DDI Blank RR

Vessel #

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\* Refilled all vessels  
w/ SW only!



| Sample # | DO   | ORP   | pH   | Temp | Cond |
|----------|------|-------|------|------|------|
| 365      | 5.44 | 226.2 | 7.84 | 26.2 | 932  |
| 366      | 6.13 | 228.6 | 7.79 | 26.3 | 935  |
| 367      | 6.91 | 224.9 | 7.86 | 26.2 | 944  |
| 368      | 7.22 | 229.4 | 7.90 | 26.1 | 912  |
| 369      | 7.17 | 228.2 | 7.91 | 26.2 | 907  |
| 370      | 7.20 | 228.9 | 7.88 | 26.4 | 911  |
| 371      | 7.50 | 235.8 | 8.01 | 26.4 | 846  |
| 372      | 6.68 | 239.5 | 7.87 | 25.9 | 815  |
| 373      | 6.60 | 234.4 | 7.83 | 25.7 | 811  |
| 374      | 6.66 | 235.1 | 7.85 | 25.8 | 803  |
| 375      | 6.78 | 231.8 | 7.86 | 25.1 | 799  |
| 376      | 6.38 | 241.6 | 7.91 | 25.9 | 655  |
| 377      | 6.06 | 235.1 | 7.94 | 25.7 | 653  |
| 378      | 7.35 | 238.0 | 7.90 | 25.7 | 722  |
| 379      | 7.33 | 238.6 | 7.93 | 25.9 | 714  |
| 380      | 7.54 | 236.5 | 7.88 | 25.8 | 501  |

DDI Blank 5

vessel #

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Refilled all vessels w/  
SW only

| Sample ID | DO   | ORP   | pH   | Temp | Cond. |
|-----------|------|-------|------|------|-------|
| 381       | 7.01 | 242.8 | 7.74 | 26.1 | 949   |
| 382       | 6.98 | 235.2 | 7.71 | 26.0 | 951   |
| 383       | 7.27 | 241.4 | 7.76 | 25.8 | 959   |
| 384       | 7.48 | 235.2 | 7.82 | 26.1 | 914   |
| 385       | 7.56 | 238.6 | 7.82 | 26.0 | 912   |
| 386       | 7.62 | 233.5 | 7.86 | 25.9 | 915   |
| 387       | 7.54 | 248.7 | 7.80 | 25.8 | 845   |
| 388       | 7.19 | 242.8 | 7.77 | 25.6 | 829   |
| 389       | 7.04 | 233.3 | 7.76 | 25.5 | 828   |
| 390       | 6.98 | 234.0 | 7.77 | 25.8 | 821   |
| 391       | 6.96 | 239.7 | 7.80 | 25.6 | 819   |
| 392       | 6.90 | 235.2 | 7.84 | 25.6 | 693   |
| 393       | 6.94 | 239.6 | 7.87 | 25.4 | 693   |
| 394       | 7.52 | 240.7 | 7.81 | 25.4 | 727   |
| 395       | 7.27 | 239.6 | 7.72 | 25.4 | 720   |
| 396       | 7.52 | 239.9 | 7.80 | 25.3 | 519   |

DDI Blank T

Vessel.

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Refilled all vessels  
w/ SW only



| Sample ID | DO   | ORP    | pH   | Temp | Cond. |
|-----------|------|--------|------|------|-------|
| 397       | 7.08 | +244.8 | 7.73 | 26.5 | 968   |
| 398       | 7.26 | +242.6 | 7.66 | 26.3 | 961   |
| 399       | 7.22 | +240.7 | 7.77 | 26.4 | 961   |
| 400       | 7.63 | +234.0 | 7.80 | 26.5 | 907   |
| 401       | 7.61 | +236.4 | 7.85 | 26.5 | 914   |
| 402       | 7.46 | +232.9 | 7.84 | 26.5 | 904   |
| 403       | 7.47 | +235.7 | 7.80 | 26.5 | 847   |
| 404       | 7.22 | +233.7 | 7.75 | 26.0 | 832   |
| 405       | 7.09 | +237.3 | 7.77 | 26.1 | 836   |
| 406       | 7.00 | +233.1 | 7.76 | 26.1 | 827   |
| 407       | 7.06 | +233.4 | 7.78 | 26.1 | 824   |
| 408       | 7.01 | +230.8 | 7.85 | 26.0 | 708   |
| 409       | 7.03 | +232.4 | 7.84 | 25.9 | 715   |
| 410       | 7.42 | +232.1 | 7.85 | 25.8 | 738   |
| 411       | 7.23 | +232.1 | 7.79 | 25.8 | 709   |
| 412       | 7.46 | +231.1 | 7.89 | 25.7 | 543   |

Vessel #

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| Sample ID | 9-13-10 | 8:00am |      |      |       |
|-----------|---------|--------|------|------|-------|
|           | DO      | ORP    | pH   | Temp | Cond. |
| 413       | 7.02    | 231.0  | 7.68 | 26.5 | 958   |
| 414       | 7.36    | 237.7  | 7.61 | 26.4 | 946   |
| 415       | 7.48    | 239.6  | 7.75 | 26.0 | 950   |
| 416       | 7.65    | 244.9  | 7.79 | 26.1 | 903   |
| 417       | 7.73    | 246.8  | 7.80 | 26.2 | 905   |
| 418       | 7.76    | 235.6  | 7.82 | 26.3 | 900   |
| 419       | 7.58    | 247.9  | 7.76 | 26.5 | 844   |
| 420       | 7.40    | 244.8  | 7.75 | 25.8 | 832   |
| 421       | 7.33    | 246.2  | 7.75 | 25.8 | 835   |
| 422       | 7.28    | 246.0  | 7.73 | 25.8 | 825   |
| 423       | 7.24    | 249.5  | 7.78 | 25.9 | 826   |
| 424       | 7.33    | 242.0  | 7.81 | 25.8 | 717   |
| 425       | 7.38    | 249.0  | 7.84 | 25.7 | 714   |
| 426       | 7.67    | 250.7  | 7.83 | 25.5 | 737   |
| 427       | 7.55    | 246.3  | 7.77 | 25.5 | 729   |
| 428       | 7.69    | 245.3  | 7.86 | 25.6 | 552   |

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\* Used DO meter to measure temperature



| Sample ID | 9-20-10 8:00 Am |        |      |      |       |
|-----------|-----------------|--------|------|------|-------|
|           | DO              | ORP    | pH   | Temp | Cond. |
| 429       | 7.31            | +282.1 | 7.67 | 26.4 | 966   |
| 430       | 7.44            | +258.7 | 7.69 | 26.4 | 958   |
| 431       | 7.68            | +292.8 | 7.72 | 26.4 | 954   |
| 432       | 7.69            | +266.5 | 7.78 | 26.3 | 978   |
| 433       | 7.70            | +273.2 | 7.80 | 26.4 | 907   |
| 434       | 7.77            | +266.8 | 7.75 | 26.5 | 904   |
| 435       | 7.53            | +270.0 | 7.71 | 26.5 | 844   |
| 436       | 7.48            | +282.5 | 7.73 | 25.9 | 834   |
| 437       | 7.37            | +279.0 | 7.72 | 25.9 | 842   |
| 438       | 7.33            | +274.2 | 7.71 | 25.9 | 827   |
| 439       | 7.44            | +276.6 | 7.73 | 25.9 | 829   |
| 440       | 7.44            | +274.4 | 7.80 | 25.8 | 733   |
| 441       | 7.50            | +270.1 | 7.82 | 25.8 | 728   |
| 442       | 7.75            | +270.7 | 7.76 | 25.7 | 745   |
| 443       | 7.61            | +265.2 | 7.71 | 25.5 | 733   |
| 444       | 7.69            | +264.4 | 7.79 | 25.6 | 568   |

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| Sample ID | DO   | ORP   | pH   | Temp | Cond. |
|-----------|------|-------|------|------|-------|
| 445       | 7.60 | 256.7 | 7.69 | 25.4 | 963   |
| 446       | 7.71 | 255.5 | 7.65 | 25.4 | 958   |
| 447       | 7.65 | 257.3 | 7.74 | 25.4 | 952   |
| 448       | 7.85 | 257.9 | 7.78 | 25.4 | 906   |
| 449       | 7.81 | 257.4 | 7.81 | 25.4 | 910   |
| 450       | 7.77 | 252.4 | 7.78 | 25.4 | 906   |
| 451       | 7.87 | 256.7 | 7.72 | 25.5 | 845   |
| 452       | 7.59 | 260.6 | 7.75 | 24.9 | 851   |
| 453       | 7.67 | 254.7 | 7.72 | 24.9 | 851   |
| 454       | 7.57 | 252.9 | 7.74 | 24.8 | 845   |
| 455       | 7.66 | 255.0 | 7.77 | 25.0 | 839   |
| 456       | 7.75 | 253.5 | 7.83 | 24.8 | 743   |
| 457       | 7.72 | 246.7 | 7.83 | 24.7 | 739   |
| 458       | 7.86 | 251.1 | 7.73 | 24.7 | 751   |
| 459       | 7.76 | 250.7 | 7.70 | 24.7 | 744   |
| 460       | 7.81 | 259.8 | 7.29 | 24.8 | 581   |

\* Used pH meter to measure temp.

\* Didn't refill vessels

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| Sample ID | DO   | ORP   | PH   | Temp. | Cond. |
|-----------|------|-------|------|-------|-------|
| 461       | 8.35 | 247.5 | 7.51 | 22.8  | 1005  |
| 462       | 8.06 | 263.4 | 7.57 | 22.9  | 1001  |
| 463       | 8.14 | 269.7 | 7.59 | 22.9  | 995   |
| 464       | 8.42 | 260.7 | 7.64 | 22.9  | 954   |
| 465       | 8.01 | 256.9 | 7.63 | 22.9  | 968   |
| 466       | 8.13 | 269.2 | 7.63 | 22.8  | 961   |
| 467       | 8.20 | 272.2 | 7.42 | 22.8  | 878   |
| 468       | 7.99 | 286.8 | 7.51 | 22.8  | 922   |
| 469       | 7.97 | 275.4 | 7.50 | 22.9  | 931   |
| 470       | 8.23 | 275.8 | 7.53 | 23.0  | 906   |
| 471       | 8.07 | 275.9 | 7.54 | 22.9  | 909   |
| 472       | 8.20 | 273.9 | 7.62 | 23.0  | 802   |
| 473       | 8.12 | 273.4 | 7.63 | 23.2  | 796   |
| 474       | 8.23 | 276.6 | 7.22 | 23.1  | 754   |
| 475       | 8.14 | 277.7 | 7.21 | 23.1  | 747   |
| 476       | 8.48 | 276.6 | 7.42 | 22.9  | 583   |

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\* Only sampled for Uf

\* Used DO meter for Temp.

\* Broke down vessels after

\* sampling

